

## Index

# Authors, Titles, and Subjects in the Marine Fisheries Review 46(1-4), 1984

## A

*Acanthophora*, 1:16  
*Acanthuridae*, 3:71  
*Albacore*, *Thunnus alalunga*, 1:1, 3:8, 4:65  
*Alfonso*, 2:15  
 distribution, 2:15  
 fisheries, 2:15  
 life history, 2:15-16  
*Amerjack*, *Seriola dumerilii*, 2:11  
 American oyster, *Crassostrea virginica*, 3:15  
 American sand lance, *Ammodytes americanus*, 2:44  
*Ammodytes americanus*, American sand lance, 2:44  
 Antarctic fur seal, *Arctocephalus gazella*, 3:59  
*Anthias bicolor*, 2:11  
*Archaeogastropods*, 4:78-79  
*Trochus incrassatus*, 4:79  
*T. maculatus*, 4:79  
*T. pyramis*, 4:78  
*Turbo argyrostoma*, 4:79  
 Artificial propagation, coho salmon, mid-Columbia River system, 3:34  
 "Assessing the accuracy of a method to determine the amount of minced fish in mixed mince-fillet fish blocks," by J. Perry Lane, John J. Ryan, and Robert J. Lescarson, 3:76  
 Atlantic croaker, *Micropogonias undulatus*, 2:45  
 Atlantic salmon, *Salmo salar*, 3:44  
 Atlantic thread herring, *Opiisthonema oglinum*, 1:19

## B

Bailey, Jack E.—see Jaenickel et al.  
*Balaena glacialis*, right whale, 4:2  
*Balaena mysticetus*, bowhead whale, 3:7, 4:2  
*Balaenoptera borealis*, sei whale, 4:2  
*Balaenoptera musculus*, blue whale, 4:2  
*Balaenoptera physalus*, fin whale, 4:2  
*Balaenidae*, 3:71  
 Bassan, Larry—see Slatick and Bassan  
 Bearded seal, *Ereignathus barbatus*, 3:7  
 Beluga whale, *Delphinapterus leucas*, 3:7  
 Bigeye tuna, *Thunnus obesus*, 1:1, 4:65  
 Bivalve mollusks, ageing, 2:27  
 Blackfin tuna, *Thunnus atlanticus*, 4:65  
 Blaha, Theodore H.—see Durkin et al.  
 "(The) blue whale, *Balaenoptera musculus*," by Sally A. Mizroch, Dale W. Rice, and Jeffrey M. Breiwick, 4:15  
 Blue whale, *Balaenoptera musculus*, 4:2  
 distribution, 4:16  
 exploitation, 4:18  
 management, 4:18-19  
 migration, 4:15  
 mortality, natural, 4:18  
 reproduction, 4:17, 18  
 stocks, 4:16, 17  
 Bluefin tuna, *Thunnus thynnus*, 1:1, 4:65  
 Bluefin tuna, *Thunnus thynnus orientalis*, 3:5  
 Bluegill, *Lepomis macrochirus*, 3:15  
 Blueside surgeonfish, *Acanthurus lineatus*, 4:78  
 "(The) bowhead whale, *Balaena mysticetus*," by Howard W. Braithwaite, 4:3  
 Bowhead whale, *Balaena mysticetus*, 3:7, 4:2, 43  
 distribution, 4:45  
 exploitation, 4:49-51  
 management, 4:51-52  
 migration, 4:45, 47  
 mortality, natural, 4:49  
 population, 4:51  
 reproduction, 4:49  
 stocks, 4:47-48  
 Box crab, *Calappa* sp., 2:13  
 Brahm, Howard W., "The bowhead whale, *Balaena mysticetus*," 4:45  
 Brahm, Howard W., "The status of endangered whales: An overview," 4:1  
 Brahm, Howard W., and Dale W. Rice, "The right whale, *Balaena glacialis*," 4:38  
 Brahm, Howard W.—see Rice et al.  
 Breiwick, Jeffrey M.—see Goshko et al., Mizroch et al.

Brigham's snapper, *Pristipomoides sonatus*, 2:11  
 Brook trout, *Salvelinus fontinalis*, 3:15  
 Brown shrimp, *Penaeus aztecus*, 2:53  
 Brusher, Harold A., Mark L. Williams, Lee Trent, and Barbara J. Palko, "Using charterboat catch records for fisheries management," 3:48  
 Buchanan, Kurt D.—see Durkin et al.  
 Butler, Richard W.—see Coe et al.  
 Butterfish, *Hoploglyphe japonica*, 2:11

## C

*Callorhinus ursinus*, northern fur seal, 3:9  
 Cape fur seals, *Arctocephalus pusillus*, 3:59  
*Carangidae*, 2:11  
 Cardine shrimps, 2:18-25  
*Heterocarpus ensifer*, 2:18  
*Heterocarpus leavigatus*, 2:18  
 Cardine shrimps, N.W. Hawaiian Islands, 2:18-26  
 catch rate, 2:20  
 distribution, 2:20-22  
 peak abundance, 2:25  
 seasonal abundance, 2:23-24  
 size/depth, 2:23  
 Celwyzy, Adrian G.—see Jaenickel et al.  
 Cetaceans, 4:2  
 "Characteristics of the Texas shrimp fleet," by Judith T. Krauthamer, William E. Grant, and Wade L. Griffin, 2:53  
 Charterboat catch records, fishery management catch and effort data, 3:48  
 catch per boat hour (CPH), 3:53  
 effort distribution, 3:52  
 fishing method, 3:49  
 fishing zones, definition, 3:48  
 species caught, 3:50  
 Chinook salmon, *Oncorhynchus tshawytscha*, 3:5, 36  
 Chilean mackerel, *Scomber japonicus*, 2:11  
 Chum salmon, *Oncorhynchus keta*, 3:5, 35  
 Chum salmon virus (CSV), 3:15  
 Ciguatera fish poisoning, eastern Caribbean fish involved, 1:16-17  
 frequency/incidence, 1:13  
 hazardous (high risk) species, 1:17  
 toxic areas, 1:15-16  
 "Ciguatera in the eastern Caribbean," by David A. Olsen, David A., David W. Willis, and Richard S. Wood, 1:13  
*Clupea harengus pallasi*, Pacific herring, 3:5  
 Coastal herring, Atlantic and Gulf, 1:19-20  
 proximate composition, 1:19-21  
 proximate composition analyses, 1:20  
 fatty acids, 1:20  
 oil, 1:19-20  
 protein, 1:20  
 Coded wire tags (CWT), internal magnetic, 3:58  
 Coe, James M., David B. Holts, and Richard W. Butler, "The 'tuna-porpoise' problem: NMFS dolphin mortality reduction research, 1970-81," 3:18  
 Coho salmon, artificial propagation in mid-Columbia River system, 3:35  
 egg production, 3:37  
 fisheries, 3:36  
 life history, 3:35-37  
 return rates, 3:40  
 seasonal runs, 3:37  
 spawning, 3:35-36  
 survival rates, 3:40-41  
 Coho salmon, *Oncorhynchus kisutch*, 3:5, 34, 64  
 Collagen, content in tuna, 2:40  
 Conger eels  
*Ariommabowersi*, 2:12  
*Conger wilsoni*, 2:12  
*Congerulus annularis*, 2:12  
 Connors, Thomas J.—see Lane and Connors  
 "Coral reef sanctuaries for trochus shells," by Gerald A. Haslingam, Obichang Orak, and Marcus Ngatramgior, 4:73  
 Coral reef snail, *Trochus niloticus*  
 abundance, 4:75  
 demand, 4:73-74

depletion, 4:74  
 distribution, 4:76  
 fisheries, 4:73  
 habitat, 4:76  
 harvest, 4:73  
 products, 4:73  
 resource management, 4:74  
 sanctuary program, 4:74-75  
 Crab, Dungeness—see Dungeness crab  
*Crassostrea virginica*, American oyster, 3:13

## D

*Delphinopterus leucas*, beluga whale, 3:7  
*Dicystota*, 1:16  
 Dolly varden, *Salvelinus malma*, 3:64  
 Dolphins, incidental mortality reduction, 3:18  
 behavior patterns, 3:20  
 management recommendations, 3:32  
 mortality, 3:20-23  
 net configuration, 3:21-22  
 regulations, 3:18, 23-31  
 research behavioral, 3:29-32  
 research mechanical, 3:22-29  
 handling methods/gear, 3:25-28  
 net design/improvements, 3:25-28  
 net/vessel handling, 3:23-25  
 "Dungeness crab leg loss in the Columbia River estuary," by Joseph T. Durkin, Kurt D. Buchanan, and Theodore H. Blaha, 1:22  
 Dungeness crab, Columbia River  
 causes of injury, 1:24  
 composition by sex, 1:22-24  
 leg loss, 1:22  
 regeneration, 1:22-24  
 Durkin, Joseph T., Kurt D. Buchanan, and Theodore H. Blaha, "Dungeness crab leg loss in the Columbia River estuary," 1:22

## E

Eastern Pacific Ocean Tuna Fishing Agreement, 4:72  
*Eicosapentaenoic acid*, 2:60-61  
 El Niño, 1:12  
 El Niño, effects on tuna resources, 4:65  
 El Niño, Pacific Northwest, 1:7-12  
 Kelvin waves, 1:7-8  
 oceanographic observations, 1:7-12  
 sea surface temperature anomalies, 1:7-8  
 sigma-density, 1:19-20  
 subsurface conditions, 1:8-10  
 "Encounters of Hawaiian monk seals with fishing gear at Lisianski Island, 1982," by John R. Henderson, 3:59  
 Endangered Species Act (ESA), 4:2  
 Endangered whales, 4:2, 4  
 Endangered Species Act (ESA), 4:2, 4  
 listed whales' status, 4:2  
 listing factors, 4:2  
 populations, 4:3, 6  
 status review, 4:2, 4, 5  
*Eucherichthys robustus*, gray whale, 3:9, 4:2  
 Northeast flat oyster, *Ostrea edulis*, 3:15  
 "Evaluation of methods to determine the proportions of fillets and minced fish flesh in mixed fish blocks," by J. Perry Lane and Thomas J. Connors, 2:38

## F

Far East mussel, *Crassostrea grayanus*, 2:33  
 Fiedler, Paul C., Gary B. Smith, and R. Michael Laurs, "Fisherfolk applications of satellite data in the eastern North Pacific," 3:1  
 "(The) fin whale, *Balaenoptera physalus*," by Sally Mizroch, Dale W. Rice, and Jeffrey M. Breiwick, 4:20  
 Fin whale, *Balaenoptera physalus*, 4:2, 20  
 distribution, 4:20-21  
 exploitation, 4:22-23  
 feeding, 4:22  
 management, 4:24  
 migration, 4:20  
 population, 4:23-24  
 reproduction, 4:22  
 stocks, 4:21-22  
 Finfish pathogens, 3:14  
 Finfish resources, Gulf of Mexico, 1:19  
 Fish Block Technical Working Group, 2:38  
 Fish blocks, composition, 2:36, 3:76  
 determination, 2:36, 3:77  
 minced fish, amount, 3:76  
 recommendations, 2:39, 3:77-78  
 Fish farming, salmon, 3:44  
 Fish farming, trout, 3:44  
 Fish oil, dietary, 2:61-62  
 consumption, 2:62

docosahexaenoic acid (DHA), 2:61  
 eicosapentaenoic acid (EPA), 2:61  
 heart attack, effects on, 2:62  
 high-, low-oil fishes, 2:62  
 Omega-3 long-chain fatty acid, 2:62  
 Fish oil concentrates, 2:61  
 "Fish or fish oil in the diet and heart attacks," by Maurice E. Stansby, 2:60  
 Fish poisoning—*see* ciguatera fish poisoning  
 Fish spoilage, honeycombing, 2:40  
 "Fisheries applications of satellite data in the eastern North Pacific," by Paul C. Fiedler, Gary B. Smith, and R. Michael Laurs, 3:1  
 Fisheries, eastern Caribbean, 1:13-17  
 Fisher Conservation Zone (FCZ), 3:48  
 Fishery research, remote sensing data, 3:1  
 Fishes, Red Sea  
 proximate composition, 3:71  
 seasonal variations, 3:74  
 Ford, Robert J., "Norwegian salmon and trout farming," 3:44  
 Frank, Hilmer A., Mitchel E. Rosenfeld, Derrick H. Yoshihaga, and Wai-Kit Nip, "Relationship between honeycombing and collagen breakdown in skipjack tuna, *Katsuwonus pelamis*," 2:40  
 Freshwater mussel, *Margaritana margaritana*, 2:33

**G**

*Gambierdiscus toxicus*—*see* ciguatera fish poisoning  
 Gammaridean amphipods: *Ampelisca*  
*A. eschrichtii*, *A. macrocephala*, *A. nux*,  
*Norfolkia brasiliensis*, *N. ekmani*, *Pontoporeia affinis*, *P. hoyi*, 3:9  
 Golden sardine, *Sardinella aurita*, 1:19  
 Gooding, Reginald M., "Trapping surveys for the deepwater caridean shrimps, *Heterocarpus laevigatus* and *H. spinifer*," in the northwest Hawaiian Islands," 2:18  
 Goshio, Merrill E., Dale W. Rice, and Jeffrey M. Breiwick, "The sperm whale, *Physeter macrocephalus*," 4:54  
 Grant, William E.—*see* Krauthamer et al.  
 "(The) gray whale, *Rhachiticus robustus*," by Dale W. Rice, Allen A. Wolman, and Howard W. Braham, 4:7  
 Gray whale, *Rhachiticus robustus*, 3:9, 4:2, 7-14  
 distribution, 4:7  
 exploitation, 4:10-12  
 feeding, 4:9  
 identification, 4:7  
 management, 4:12-13  
 migrations, 4:8  
 natural mortality, 4:10  
 reproduction, 4:10  
 stocks, 4:7  
 Great whales—Special Section, 4:1  
 Green turtle, *Chelonia mydas*, 3:57  
 Griffin, Wade L.—*see* Krauthamer et al., Tetley and Griffin  
 Groundfish, 2:11  
 "Groundfish fisheries and research in the vicinity of seamounts in the North Pacific Ocean," by Richard N. Uchida and Darryl T. Tagami, 2:1  
 Groundfish fisheries, Hawaiian Archipelago, 2:1  
 commercial exploitation, 2:2  
 preliminary management plan, 2:1  
 species biology  
     Alfonso, 2:15  
     pelagic armorhead, 2:13  
 Grouper, *Cephalopholis schlegelii*, 2:11  
 Grouper, *Sphenechus querens*, 2:11  
 Growth lines, bivalve mollusks, 2:27

**H**

Hake, red and silver, surimi  
 commercial processing, 2:44  
 gel-forming ability, 2:44  
 laboratory processing, 2:46  
 Hale, Malcolm B., "Proximate chemical composition and fatty acids of three small coastal pelagic species," 1:19  
 Hanna, Rifaat G. M., "Proximate composition of certain Red Sea fishes," 3:71  
 Harbor seal, *Phoca vitulina*, 3:7  
 Hard clam, *Mercuraria mercenaria*, 2:33, 3:15  
 Hawaiian Archipelago, seamount survey, 2:7-13  
     bottom topography, 2:7-8  
     sampling, 2:8-9  
     seamounts, 2:1  
 Hawaiian monk seals, *Monachus schauinslandi*, 3:59, Hemirhamphidae, 3:71  
 Henderson, John R., "Encounters of Hawaiian monk seals with fishing gear at Lisianski Island, 1982," 3:59

Hermit crab, *Dardanus* spp., 2:12, 4:76  
 Herrick, Samuel F., Jr., "U.S. tuna trade summary, 1982," 1:1  
 Herrick, Samuel F., Jr., and Steven Koplin, "U.S. tuna trade summary, 1983," 4:65  
 Heulings, Gerald A., Obichang Orak, and Marcus Ngiamengior, "Coral reef sanctuaries for trochus shells," 4:73  
 "History of artificial propagation of coho salmon, *Oncorhynchus kisutch*, in the mid-Columbia River system," by Roy J. Wahle and Roger E. Pearson, 3:34  
 Holts, David B.—*see* Cos et al.  
 Honeycombing, skipjack tuna analysis, 2:41  
 definition, 2:40  
 evaluation, 2:40  
 "(The) humpback whale, *Megaptera novaeangliae*," by James H. Johnson, and Allen A. Wolman, 4:30  
 Humpback whale, *Megaptera novaeangliae*, 3:9, 4:30  
 distribution, 4:31  
 exploitation, 4:35  
 feeding, 4:33-34  
 habitat protection, 4:36  
 identification, 4:30  
 management, 4:35-36  
 migration, 4:31  
 mortality, 4:34-36  
 population, 4:35  
 recruitment, 4:34  
 reproduction, 4:34  
 stocks, 4:31-32

**I-J**

"(The) incidental capture of sea turtles in the Atlantic U.S. Fishery Conservation Zone by the Japanese tuna longline fleet," by W. N. Witzell, 3:56  
 Infectious hematopoietic necrosis virus (IHNV), 3:14  
 International Whaling Commission (IWC), 4:21, 26, 35, 39, 47, 59  
 "Investigation in Gulf of Mexico shrimp vessels, 1963-77," by Ernest O. Tetley and Wade L. Griffin, 2:49  
 Jack mackerel, *Trachurus symmetricus*, 3:5  
 Jaenike, Herbert W., Adrian G. Celewcyz, Jack E. Bailey, and Joseph A. Orsi, "Paired open beach seines to study estuarine migrations of juvenile salmon," 3:62  
 Johnson, James H., and Allen A. Wolman, "The humpback whale, *Megaptera novaeangliae*," 4:30

**K-L**

Kemp's ridley turtle, *Lepidochelys kempi*, 3:57  
 Killer whale, *Orcinus orca*, 4:34  
 King crab, *Paralithodes* spp., 3:7  
 Koplin, Steven—*see* Herrick and Koplin  
 Krauthamer, Judith T., William E. Grant, and Wade L. Griffin, "Characteristics of the Texas shrimp fleet," 2:53  
 Labridae, 2:11, 3:71  
 Lane, J. Perry and Thomas J. Connors, "Evaluation of methods to determine the proportions of fillets and minced fish flesh in mixed fish blocks," 2:36  
 Lane, J. Perry, John J. Ryan, and Robert J. Learson, "Assessing the accuracy of a method to determine the amount of minced fish in mixed mince-fillet fish blocks," 3:76  
 Lanier, Tyre C., "Suitability of red hake, *Urophycis chuss*, and silver hake, *Merluccius bilinearis*, for processing into surimi," 2:43  
 Laurs, R. Michael—*see* Fiedler et al.  
 Learson, Robert J.—*see* Lane et al.  
 Leatherback turtle, *Dermochelys coriacea*, 3:57  
 Lethrinidae, 3:71  
 Loggerhead turtle, *Caretta caretta*, 3:57  
 Lutjanidae, 2:11, 3:71

**M**

Mackerel scad, *Decapterus labi*, 2:11  
 Magnuson Fishery Conservation and Management Act (MFCMA), 2:1, 3:48  
 Marine bivalve mollusks as reservoirs of viral finfish pathogens: Significance to marine and anadromous finfish aquaculture," by Theodore R. Meyers, 3:14  
 Marine fish farms, Norwegian  
     Atlantic salmon, 3:44-46  
     rainbow trout, 3:46  
 Marine Mammal Protection Act (MMPA) of 1972, 3:18, 4:2

*Megaptera novaeangliae*, humpback whale, 3:9, 4:2  
*Mercuraria mercenaria*, hard clam, 3:15  
*Merluccius productus*, Pacific whiting, 3:5  
 Meyers, Theodore R., "Marine bivalve mollusks as reservoirs of viral finfish pathogens: Significance to marine and anadromous finfish aquaculture," 3:14  
*Microgonioides undulatus*, Atlantic croaker, 2:45  
 Minced fish, amount in fish blocks, 3:76  
 Miroch, Sally A., Dale W. Rice, and Jeffrey M. Breiwick, "The blue whale, *Balaenoptera musculus*," 4:15  
 Miroch, Sally, Dale W. Rice, and Jeffrey M. Breiwick, "The fin whale, *Balaenoptera physalus*," 4:20  
 Miroch, Sally, Dale W. Rice, and Jeffrey M. Breiwick, "The sei whale, *Balaenoptera borealis*," 4:25  
 Monk seals, entanglement with fishing gear, 3:59  
 incidence, 3:60-61  
 response, 3:60-61  
 Moray eels: *Gymnothorax berndti*, *G. stenorhynchus*, *G. undulatus*, 2:12  
 Mullidae, 3:71

**N-O**

Narwhal, *Monodon monoceros*, 3:7  
 National Aeronautics and Space Administration (NASA), satellites, 3:1  
 Nellis, David W.—*see* Olsen et al.  
 Ngiamengior, Marcus—*see* Heulings et al.  
 Nip, Wai-Kit—*see* Frank et al.  
 "Nonselectivity of gillnet fishery on jaw-tagged adult steelhead, *Salmo gairdneri*," by Emil Slatnick and Larry Basham, 3:68  
 Northern fur seal, *Callorhinus ursinus*, 3:9, 59  
 "Norwegian salmon and trout farming," by Robert J. Ford, 3:44  
 Observer program, voluntary/mandatory, 3:20-21  
 Ocean condition research, remote sensing data, 3:1  
 Ocean quahog, *Arctica islandica*, 2:28-29  
     age and growth studies, 2:28-29  
     sex determination, 2:32-33  
     validation of annual periodicity, 2:29-30  
 "Oceanographic observations off the Pacific Northwest following the 1982 El Niño event," by R. K. Reed, 1:7  
*Octopus* sp., 2:13  
 Olsen, David A., David W. Nellis, and Richard S. Wood, "Ciguatera in the eastern Caribbean," 1:13  
 Omega-3 long chain fatty acid, 2:60-62  
 fish oil concentrates, in, 2:61  
 serum cholesterol effects, 2:61  
*Oncorhynchus gorbuscha*, pink salmon, 3:5, 35  
*O. keta*, chum salmon, 3:5, 35  
*O. klawath*, coh salmon, 3:5, 34  
*O. nerka*, sockeye salmon, 3:5, 14  
*O. tshawytscha*, chinook salmon, 3:5, 36  
 Orak, Obichang—*see* Heulings et al.  
*Orcinus orca*, killer whale, 4:34  
 Orsi, Joseph A.—*see* Jaenike et al.

**P-Q**

Pacific herring, *Clupea harengus pallasi*, 3:5  
 Pacific mackerel, *Scomber japonicus*, 3:5  
 Pacific salmon, *see* *Oncorhynchus* spp.  
 Pacific salmon migrations, S.E. Alaska, 3:62  
     analysis, 3:65  
     direction, 3:63  
     timing, 3:63  
 Pacific whiting, *Merluccius productus*, 3:5  
 "Paired open beach seines to study estuarine migrations of juvenile salmon," by Herbert W. Jaenike, Adrian G. Celewcyz, Jack E. Bailey, and Joseph A. Orsi, 3:62  
 Falco, Barbara J.—*see* Brusher et al.  
 Pathogens, finfish, 3:14  
 bioaccumulation, 3:14-16  
 depuration, 3:14  
 epizootics, 3:14  
 infectious hematopoietic necrosis, 3:14  
 IPN molluscabirnavirus, 3:15  
 JUV-1, 3:15  
 management implications, 3:16  
 potential infections, bivalves, 3:15  
     chum salmon virus (CSV), 3:15  
     infectious hematopoietic necrosis virus (IHNV), 3:16  
 salmonid IPN piscibivirus, 3:16  
 13<sup>2</sup> reovirus, 3:15  
 Pearson, Roger E.—*see* Wahle and Pearson  
 Pelagic armorhead, *Pentaceropsis richardsoni*, 2:2  
     distribution, 2:13  
     feeding behavior, 2:13

fisheries, 2:14  
 life history, 2:13-14  
 migration, 2:13  
 morphological differences, 2:14  
 population, 2:13  
 Penaeid shrimp, *Penaeus japonicus*, 2:19  
*Phoca vitulina*, harbor seal, 3:7  
*Physeter macrocephalus*, sperm whale, 4:2  
 Pink salmon, *Oncorhynchus gorbuscha*, 3:5, 35,  
     62, 64  
 Pink shrimp, *Penaeus duorarum*, 2:53  
 Pink snapper, *Pristipomoides zieboldii*, 2:11  
*Plectranthias kelloggii*, 2:11  
 Poisons—*see* Ciguatera fish poisoning  
 Polar bear, *Ursus maritimus*, 3:7  
 Pollock, *Theragra chalcogramma*, 2:45  
 Polymastacidae, 2:60-61  
 "Procedures for preparing acetate peels and evidence validating the annual periodicity of growth lines formed in the shells of ocean quahogs, *Arctica islandica*," by John W. Ropes, 2:27  
 "Proximate chemical composition and fatty acids of three small coastal pelagic species," by Malcolm B. Hale, 1:19  
 Proximate composition  
     coastal (S.E. U.S.) herrings, 2:20  
     Red Sea fishes, 3:71  
 "Proximate composition of certain Red Sea fishes," by Rifaat G. M. Hanna, 3:71  
 Purse-seining, tuna, 3:18

**R**

Rainbow trout, *Salmo gairdneri*, 3:15, 44  
 Red bigeye, *Cephaloscyllium boopis*, 2:10  
 Red hake, *Urophycis chuss*, 2:43  
 Red snapper, *Epinephelus guttatus*, 2:11  
 Reed, R. K., "Oceanographic observations off the Pacific Northwest following the 1982 El Nino event," 1:7  
 "Relationship between honeycombing and collagen breakdown in skipjack tunas, *Katsuwonus pelamis*," by Hilmer A. Frank, Mitchel E. Rosenfeld, Derrick H. Yoshinaga, and Wai-Kit Ng, 2:40  
 Remote sensing, satellite, 3:1  
 Ribbon seal, *Phoca fasciata*, 3:7  
 Rice, Dale W., Allen A. Wolman, and Howard W. Brahm, "The grey whale, *Eubalaena robustus*," 4:7  
 Rice, Dale W.—*see* Brahm and Rice, Gosho et al.,  
     Mirosh et al.  
 "(The) right whale, *Balaena glacialis*," by Howard W. Brahm and Dale W. Rice, 4:38  
 Right whale, *Balaenoptera glacialis*, 4:2, 38  
     distribution, 4:38  
     exploitation, 4:42-43  
     feeding, 4:41  
     identification, 4:38-39  
     management, 4:43-44  
     migration, 4:38  
     mortality, 4:42  
     population, 4:43  
     reproduction, 4:41-42  
     stocks, 4:39-41  
 Ringed seal, *P. hispida*, 3:7  
 Rockfish, *Sebastodes matsubarae*, 2:4  
 Ropes, John W., "Procedures for preparing acetate peels and evidence validating the annual periodicity of growth lines formed in the shells of ocean quahogs, *Arctica islandica*," 2:27  
 Rosenfeld, Mitchel E.—*see* Frank et al.  
 Round scad, *Decapterus punctatus*, 1:19  
 Ryan, John J.—*see* Lane et al.

**S**

*Salmo gairdneri*, 3:15, 35  
 Satellite, remote sensing, 3:1  
 Satellite sensors, 3:1-10  
     applications, 3:3-7  
     charts, 3:7  
     coastal zone monitoring, 3:6-7

ocean/surface conditions, 3:3-6  
 prediction, stock recruitment, 3:5  
 sea-ice monitoring, 3:7  
 Saturated fatty acids, 2:60-61  
*Scomber japonicus*, Pacific mackerel, 3:5  
 Scombridae, 2:11  
 Scarpaenidae, 2:11  
 Seared cod, *Gadus morhua*, 3:76  
 Scyliorhinidae, 3:57  
 Sea turtle, "Incidental runs-trawl catch, 3:37  
     Atlantic longline fishery, in, 3:57  
     catch, 3:56-58  
     catch permits, 3:49  
     distribution, 3:57  
 Sea urchin, *Echinometridae*, 2:13  
 Sea-ice, remote sensing monitoring, 3:7  
 SEASAT satellite, 3:6  
 "(The) sei whale, *Balaenoptera borealis*," by Sally Mirosh, Dale W. Rice, and Jeffrey M. Breiwick, 4:23  
 Sei whale, *Balaenoptera borealis*, 4:2, 25  
     distribution, 4:23-26  
     exploitation, 4:27-28  
     feeding, 4:27  
     identification, 4:25  
     management, 4:28-29  
     migration, 4:25  
     mortality, 4:27  
     population, 4:28  
     reproduction, 4:27  
     stocks, 4:26-27  
 Serranidae, 3:71  
 Shrimp fishery, Texas, 2:53  
     commercial, 2:53  
     costs, 2:53  
     economic impacts, 2:53  
     fishing areas, 2:53  
     fleet, 2:54  
     legislation, 2:58-59  
     licensing, 2:53  
     management, 2:53  
     recreational, 2:53  
     total landings/value, 2:53  
     vessels, 2:53  
 Shrimp landings, Gulf of Mexico, 2:51  
 Shrimp vessel, Gulf of Mexico, 2:49  
 Signidae, 3:71  
 Silver hake, *Merluccius bilinearis*, 2:43  
 Skipjack tuna, *Euthynnus pelatus*, 1:1, 2:40, 4:65  
 Slatnick, Dale and Larry Basham, "Nonselectivity of gillnet fishery on jaw-tagged adult steelhead, *Salmo gairdneri*," 3:68  
 Slipper lobster, *Scyllaridae squammosus*, 2:13  
 Snake mackerel, *Promethichthys prometheus*, 2:9  
 Snow (tanner) crab, *Chionocarcinus* spp., 3:7  
 Sockeye salmon, *Oncorhynchus nerka*, 3:5, 14, 35  
 Spanish sardine, *Sardinella aurita*, 1:19  
 Sparidae, 3:71  
 "(The) sperm whale, *Physeter macrocephalus*," by Merrill E. Gosho, Merrill E., Dale W. Rice, and Jeffrey M. Breiwick, 4:54  
 Sperm whale, *Physeter macrocephalus*, 4:2, 54  
     distribution, 4:54-59  
     exploitation, 4:60-62  
     feeding, 4:59-60  
     identification, 4:54  
     management, 4:63  
     population, 4:60  
     reproduction, 4:60  
     stocks, 4:59, 62-63  
     stocks, 4:59  
 Sporidae, 1:16  
 Stanbury, Maurice E., "Fish or fish oil in the diet and heart attacks," 2:60  
 Starfish, *Asteropectenidae*, 2:12  
 "(The) status of endangered whales: An overview," by Howard W. Brahm, 4:2  
 Steelhead, *Salmo gairdneri*, 3:35, 68-69  
 Stock recruitment, remote sensing predictions, 3:5  
 "Suitability of red hake, *Urophycis chuss*, and silver hake, *Merluccius bilinearis* for processing into surimi," by Tyre C. Lanier, 2:43  
 Surf clam, *Spisula solidissima*, 2:27  
 Surimi, red and silver hake, 2:43

**T**

Tagami, Darryl T.—*see* Uchida and Tagami  
 Tetraodontidae, 2:11  
 Tettey, Ernest O., and Wade L. Griffin, "Investment in Gulf of Mexico shrimp vessels, 1965-77," 2:49  
*Theragra chalcogramma*, pollock, 2:45  
*Thunnus alalunga*, albacore, 3:8  
*T. albacares*, yellowfin tuna, 3:18  
*T. thynnus orientalis*, bluefin tuna, 3:5  
 Toxins—*see* ciguatera fish poisoning  
*Trachurus symmetricus*, jack mackerel, 3:5  
 "Trapping surveys for the deepwater caridean shrimps, *Heterocarpus levigatus* and *H. esquiroli*, in the Northwest Hawaiian Islands," by Reginald M. Gooding, 2:18  
 Trent, Lee—*see* Brusher et al.  
*Trochus niloticus*, 4:73  
*Trochus pyramis*, 4:76  
 Tunas—*see* individual species  
 "(The) tuna-porpoise problem: NMFS dolphin mortality reduction research, 1970-81," by James M. Cox, David B. Holts, and Richard W. Butler, 3:18  
 Tuna trade, U.S., 1:1-7, 4:65, 71  
     albacore production, white meat tuna, 4:66  
     Atlantic catch, 1:3-4  
     canned tuna imports, 4:65, 70-71  
     canned white meat tuna, 4:67  
     cannery receipts, 1:1-4  
     domestic production, 4:65  
     fleet characteristics, 4:65  
     foreign processors, 4:65  
     markets, 4:71  
     Pacific catch, 1:2  
     production, 1:4-5  
     resource limitations, 4:71  
     retail sales, 4:71  
     tropical light meat tuna processing, 4:68  
     U.S. consumption of canned tuna, 4:71  
*Turbinaria*, 1:16

**U-V**

U.S. Department of Commerce Voluntary Fishery Product Inspection Program, 3:76  
 U.S. fisheries, regulatory guidelines, 3:49  
 U.S. Grade Standards for Fishery Products, 3:76  
 U.S. Standards for Grades of Frozen Fish Blocks, 2:18, 3:76  
 "U.S. tuna trade summary, 1982," by Samuel F. Herrick, Jr., 1:1  
 "U.S. tuna trade summary, 1983," by Samuel F., Herrick, Jr., and Steven Koplin, 4:65  
 Uchida, Richard H., and Darryl T. Tagami, "Groundfish fisheries and research in the vicinity of seamounts in the North Pacific Ocean," 2:1  
 "Using charterboat catch records for fisheries management," by Harold A. Brusher, Mark L. Williams, Lee Trent, and Barbara J. Falko, 3:48

**W-Z**

Wahle, Roy J., and Roger E. Pearson, "History of artificial propagation of coho salmon, *Oncorhynchus kisutch*, in the mid-Columbia River system," 3:34  
 Walrus, *Odobenus rosmarus*, 3:7  
 White shrimp, *Penaeus setiferus*, 2:53  
 Williams, Mark L.—*see* Brusher et al.  
 Witzell, W. N., "The incidental capture of sea turtles in the Atlantic U.S. Fishery Conservation Zone by the Japanese tuna longline fleet," 1:36  
 Wolman, A. A.—*see* Johnson and Wolman, Rice et al.  
 Wood, Richard S.—*see* Olsen et al.  
 Yellowfin tuna, *Thunnus albacares*, 1:1, 3:18  
 Yoshinaga, Derrick H.—*see* Frank et al.

## List of Papers

# Papers in the Marine Fisheries Review 46(1-4), 1984

### 46(1)

"U.S. Tuna Trade Summary, 1982," Samuel F. Herrick, Jr., 1:1-6.  
"Oceanographic Observations Off the Pacific Northwest Following the 1982 El Nino Event," R. K. Reed, 1:7-12.  
"Ciguatera in the eastern Caribbean," David A. Olsen, David W. Nellis, and Richard S. Wood, 1:13-18.  
"Proximate Chemical Composition and Fatty Acids of Three Small Coastal Pelagic Species," Malcolm B. Hale, 1:19-21.  
"Dungeness Crab Leg Loss in the Columbia River Estuary," Joseph T. Durkin, Kurt D. Buchanan, and Theodore H. Blahm, 1:22-24.

### 46(2)

"Groundfish Fisheries and Research in the Vicinity of Seamounts in the North Pacific Ocean," Richard N. Uchida and Darryl T. Tagami, 2:1-17.  
"Trapping Surveys for the Deepwater Caribbean Shrimps, *Heterocarpus laevigatus* and *H. ensifer*, in the Northwest Hawaiian Islands," Reginald H. Gooding, 2:18-26.  
"Procedures for Preparing Acetate Peels and Evidence Validating the Annual Periodicity of Growth Lines Formed in the Shells of Ocean Quahogs, *Arctica islandica*," John W. Ropes, 2:27-35.  
"Evaluation of Methods to Determine the Proportions of Fillets and Minced Fish Flesh in Mixed Fish Blocks," J. Perry Lane and Thomas J. Connors, 2:36-39.  
"Relationship between Honeycombing and Collagen Breakdown in Skipjack Tuna, *Katsuwonus pelamis*,"

Hilmer A. Frank, Mitchel E. Rosenfeld, Derrick H. Yoshinaga, and Wal-Kit Ip, 2:40-42.  
"Suitability of Red Hake, *Urophycis chuss*, and Silver Hake, *Merluccius bilinearis*, for Processing into Surimi," Tyre C. Lanier, 2:43-48.  
"Investment in Gulf of Mexico Shrimp Vessels, 1965-77," Ernest O. Tetey and Wade L. Griffin, 2:49-52.  
"Characteristics of the Texas Shrimp Fleet," Judith T. Krauthamer, William E. Grant, and Wade L. Griffin, 2:53-59.  
"Fish or Fish Oil in the Diet and Heart Attacks," Maurice E. Stansby, 2:60-63.

**46(3)**

"Fisheries Applications of Satellite Data in the Eastern North Pacific," Paul C. Fiedler, Gary B. Smith, and R. Michael Laurs, 3:1-13.  
"Marine Bivalve Mollusks as Reservoirs of Viral Finfish Pathogens: Significance to Marine and Anadromous Finfish Aquaculture," Theodore R. Meyers, 3:14-17.  
"The 'Tuna-Porpoise' Problem: NMFS Dolphin Mortality Reduction Research, 1970-81," James M. Coe, David B. Holts, and Richard W. Butler, 3:18-33.  
"History of Artificial Propagation of Coho Salmon, *Oncorhynchus kisutch*, in the Mid-Columbia River System," Roy J. Wahle and Roger E. Pearson, 3:34-43.  
"Norwegian Salmon and Trout Farming," Robert J. Ford, 3:44-47.  
"Using Charterboat Catch Records for Fisheries Management," Harold A. Brusher, Mark L.

Williams, Lee Trent, and Barbara J. Palko, 3:48-55.  
"The Incidental Capture of Sea Turtles in the Atlantic U.S. Fishery Conservation Zone by the Japanese Tuna Longline Fleet," W. M. Witzell, 3:56-58.  
"Encounters of Hawaiian Monk Seals With Fishing Gear at Lisianski Island, 1982," John R. Henderson, 3:59-61.  
"Paired Open Beach Seines to Study Estuarine Migrations of Juvenile Salmon," Herbert W. Jaenike, Adrian G. Celewycz, Jack E. Bailey, and Joseph A. Orsi, 3:62-67.  
"Nonselectivity of Gillnet Fishery on Jaw-tagged Adult Steelhead, *Salmo gairdneri*," Emil Slatick and Larry Basham, 3:68-70.  
"Proximate Composition of Certain Red Sea Fishes," Rifaat G. M. Hanna, 3:71-75.  
"Assessing the Accuracy of a Method to Determine the Amount of Minced Fish in Mixed Mince-Fillet Fish Blocks," J. Perry Lane, John J. Ryan, and Robert J. Larson, 3:76-79.

### 46(4)

"The Status of Endangered Whales: An Overview," Howard W. Braham, 4:2-6.  
"The Gray Whale, *Eschrichtius robustus*," Dale W. Rice, Allen A. Wolman, and Howard W. Braham, 4:7-14.  
"The Blue Whale, *Balaenoptera musculus*," Sally A. Mizroch, Dale W. Rice, and Jeffrey M. Breiwick, 4:15-19.  
"The Fin Whale, *Balaenoptera physalus*," Sally Mizroch, Dale W. Rice, and Jeffrey M. Breiwick, 4:20-24.  
"The Sei Whale, *Balaenoptera borealis*," Sally Mizroch, Dale W. Rice, and Jeffrey M. Breiwick, 4:25-29.  
"The Humpback Whale, *Megaptera novaeangliae*," James H. Johnson and Allen A. Wolman, 4:30-37.  
"The Right Whale, *Balaena glacialis*," Howard W. Braham and Dale W. Rice, 4:38-44.  
"The Bowhead Whale, *Balaena mysticetus*," Howard W. Braham, 4:45-53.  
"The Sperm Whale, *Physeter macrocephalus*," Merrill E. Gosho, Dale W. Rice, and Jeffrey M. Breiwick, 4:54-64.  
"U.S. Tuna Trade Summary, 1983," Samuel F. Herrick, Jr. and Steven Koplin, 4:65-72.  
"Coral Reef Sanctuaries for Trochus Shells," Gerald A. Heslinga, Obichang Orak, and Marcus Ngiramengtor, 4:73-80.

